

WHAT IS CLAIMED IS:

- 1           1.       A thermoelectric semiconductor element, comprising:  
2                   a first section; and  
3                   a second section, wherein a cross-section of the first section is greater than a  
4                   cross-section of the second section.
  
- 1           2.       The thermoelectric semiconductor element according to claim 1, wherein the first  
2                   section is adjacent to a hot side of the thermoelectric semiconductor element.
  
- 1           3.       The thermoelectric semiconductor element according to claim 1, wherein the  
2                   second section is adjacent to a cold side of the thermoelectric semiconductor element.
  
- 1           4.       The thermoelectric semiconductor element according to claim 1, wherein the first  
2                   section is closer to a hot side of the thermoelectric semiconductor element than the second  
3                   section.
  
- 1           5.       The thermoelectric semiconductor element according to claim 1, wherein the  
2                   thermoelectric semiconductor element is asymmetrical.
  
- 1           6.       A semiconductor thermoelectric module, comprising:  
2                   a plurality of semiconductor elements each having a first section and a second  
3                   section, wherein a cross-section of the first section is greater than a cross-section of the  
4                   second section.

1           7.       The semiconductor thermoelectric module according to claim 6, wherein the first  
2   section is adjacent to a hot side of the semiconductor thermoelectric module.

1           8.       The semiconductor thermoelectric module according to claim 6, wherein the  
2   second section is adjacent to a cold side of the semiconductor thermoelectric module.

1           9.       The semiconductor thermoelectric module according to claim 6, wherein the first  
2   section is closer to a hot side of the semiconductor thermoelectric module than the second  
3   section.

1           10.      The semiconductor thermoelectric module according to claim 6, wherein the  
2   semiconductor elements are asymmetrical.

1           11.      A semiconductor thermoelectric generator, comprising:  
2                   a plurality of thermoelectric modules each having a plurality of semiconductor  
3   elements connected electrically in series via electrical conductors to a first side of the  
4   thermoelectric modules and to a second side of the thermoelectric modules, wherein each  
5   of the plurality of semiconductor elements has a first section and a second section, and a  
6   cross-section of the first section is greater than a cross-section of the second section.

1           12.      The semiconductor thermoelectric generator according to claim 11, wherein the  
2   first section is adjacent to a hot side of the semiconductor thermoelectric modules.

1           13.     The semiconductor thermoelectric generator according to claim 11, wherein the  
2     second section is adjacent to a cold side of the semiconductor thermoelectric modules.

1           14.     The semiconductor thermoelectric generator according to claim 11, wherein the  
2     first section is closer to a hot side of the semiconductor thermoelectric modules than the second  
3     section.

1           15.     The semiconductor thermoelectric generator according to claim 11, wherein the  
2     semiconductor elements are asymmetrical.

1           16.     A thermoelectric semiconductor element, comprising:  
2                   a first section; and  
3                   a second section, wherein a heat path of the first section is greater than a heat path  
4     of the second section.

1           17.     The thermoelectric semiconductor element according to claim 16, wherein the  
2     first section is adjacent to a hot side of the thermoelectric semiconductor element.

1           18.     The thermoelectric semiconductor element according to claim 16, wherein the  
2     second section is adjacent to a cold side of the thermoelectric semiconductor element.

1           19.     The thermoelectric semiconductor element according to claim 16, wherein the  
2     first section is closer to a hot side of the thermoelectric semiconductor element than the second  
3     section.

1           20.     The thermoelectric semiconductor element according to claim 16, wherein the  
2     thermoelectric semiconductor element is asymmetrical.